

Structural Stud (s)



MATERIAL	
Web (in)	8
Flange (in)	1 $\frac{5}{8}$
Lip (in)	0.500
Yield Strength Fy (KSI)	50
Tensile Strength Fu (KSI)	65
Design Thickness (in)	0.0713
Minimum Thickness (mil)	68
Gauge	14
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	2.84
Cross Sectional Area: A (in ²)	0.836
Moment of Inertia: Ix (in ⁴)	7.092
Section Modulus: Sx (in ³)	1.773
Radius of Gyration: Rx (in)	2.913
Moment of Inertia: Iy (in ⁴)	0.235
Radius of Gyration: Ry (in)	0.530

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: Ixe (in ⁴)	7.074
Section Modulus: Sxe (in ³)	1.647
Local Buckling Allowable Moment: Mal (in-k)	49.32
Distortional Buckling Allowable Moment: Mad (in-k)	42.89
Allowable strong axis shear away from punch: Vag (lb)	4220
Allowable strong axis shear at punch: Vanet (lb)	3367
(check web crippling)	

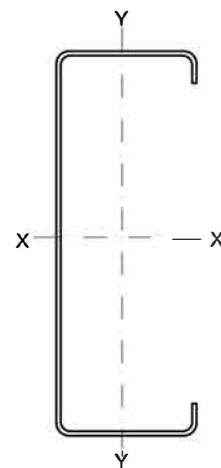
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	1.416
Torsional Warping Constant: Cw (in ⁶)	3.093
Shear Center to Centroid on Principal X-axis: Xo (in)	-0.899
Radius of Gyration on the Centroid Principal axis: Ro (in)	3.094

PRODUCT ID

800S 162-68 (8x1 $\frac{5}{8}$ x14ga) (Grade 50)

CODES & STANDARDS

- ASTM A 1003, A 653, & C 955
- AISI S100-16



See Hermes/Hephaistos Technical Manual
for complete design data